

Application No.: 10/531,435
Filing Date: October 7, 2005

AMENDMENTS TO THE SPECIFICATION

Please replace the last paragraph on page 2 with the following amended paragraph:

WO 98/40406 describes specific calcium phosphopeptide complexes having anticaries efficacy. The phosphopeptides contain the Ser(p) cluster sequence motif [-Ser(P)-Ser(P)-Ser(P)-Glu-Glu], where Ser(P) is phosphoserine, and are said to be able to stabilize their own weight in amorphous calcium phosphate and amorphous calcium fluoride phosphate.

Please replace the first paragraph on page 8 with the following amended paragraph:

Figure 5 shows the changes in microhardness of enamel after a demineralization treatment in 0.1mol/L acetic acid pH 4.5 for 24 hours followed by remineralisation in a "MAP 112" phosphoprotein solution, prepared by the method of Example 4, containing 60 mmol/L calcium ions and 36 mmol/L phosphate ions;

Please replace the last paragraph on page 12 with the following amended paragraph:

Those persons skilled in the art will appreciate that by varying the reaction conditions appropriately, such as the reaction time and enzyme concentration, a partially hydrated casein having the desired degree of hydrolysis can be obtained. By way of example, a partially hydrolyzed casein having a suitable degree of hydrolysis may be obtained by first solubilizing a 10% isoelectric precipitated casein solution with NaOH to pH 7 at 50°C. The solution is then cooled to 37°C, and a porcine pancreatic trypsin preparation (a suitable preparation commercially available from Novozymes® under the product name [[as]] Novo.4500K, molecular weight 23,400 Da, activity 4500 USP (United States Pharmacopaeia) units/mg) added at about 0.01% w/v casein and incubated for 15 minutes. Enzyme inactivation may be achieved by heating to 80°C and holding for 5 minutes.

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Please replace the last paragraph on page 19 with the following amended paragraph:

The molecular weight profiles of the phosphoprotein preparations were determined by gel filtration as follows. A 1% protein solution was prepared in 6M Urea, with 50mM sodium phosphate at pH 7.5 as the buffer. This solution was centrifuged at 10 000 × g for 10 minutes and passed through a 0.2µm filter. A sample volume of 500 µl injected into the 100µl sample loop of a Pharmacia FPLC fitted with a Superdex 200 10/30HR column. The running buffer was 6 M Urea, with 50mM sodium phosphate at pH 7.5 and flow rate of 0.5 ml/min. Detection was by UV absorption (280 $[[\eta_m]]_{nm}$). The protein absorption curve was integrated and arbitrarily divided into the following four molecular weight groupings:

Please replace the paragraph on page 20 with the following amended paragraph:

Molecular weight	Lot number			
range (Da)	5	6	7	1
≥30,000	13.66	11.66	9.4	9.84
<30,000,≥21,000	53.74	50.78	49.13	48.87
<21,000,≥12,000	7.58	9.99	11.37	10.92
<12,000	25.02	27.57	30.1	30.37

Please replace the paragraph following the heading *Molecular weight profiles of Lot 5* on page 23 with the following amended paragraph:

Molecular weight range (Da)

≥30,000	13.66
<30,000,≥21,000	53.74
<21,000,≥12,000	7.58
<12,000	25.02

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Please replace the paragraph following the heading *Molecular weight profile after hydrolysis* on page 32 with the following amended paragraph:

Molecular weight range (Da)	Percentage
$\geq 30,000$	10.7
$<30,000, \geq 21,000$	57.8
$<21,000, \geq 12,000$	15.7
$<12,000$	15.8